AMENDMENTS TO THE CLAIMS

1 to 37. (Canceled)

38. (New) A method for delivering a β-hydroxy short-medium chain fatty acid or an oligomer thereof to the large intestine of an animal including human, which comprises administering orally a polymer of the β-hydroxy short-medium chain fatty acid to the animal.

39. (New) The method of claim 38, wherein the β-hydroxy short-medium chain fatty acid is selected from the group consisting of : β-hydroxybutyric acid, β-hydroxypropionic acid, β-hydroxyvaleric acid, β-hydroxycaproic acid, β-hydroxycaprylic acid, β-hydroxycapric acid, and a mixture thereof.

40. (New) The method of claim 38, wherein the polymer is a monopolymer of a β-hydroxy short-medium chain fatty acid.

41. (New) The method of claim 38, wherein the polymer is a copolymer of β-hydroxy short-medium chain fatty acids.

42. (New) The method of claim 38, wherein the polymer is a monopolymer or copolymer comprising β-hydroxybutyric acid residue.

43. (New) The method of claim 38, wherein the poly(β-hydroxy short-medium chain fatty acid) is water insoluble.

44. (New) The method of claim 43, wherein the weight average molecular weight of the poly(β-hydroxy short-medium chain fatty acid) is in the range of 1,000-20,000,000.

45. (New) The method of claim 38, wherein the poly(β-hydroxy short-medium chain fatty acid) is that produced by a microorganism.

46. (New) The method of claim 38, wherein the microorganism containing the poly(β-hydroxy short-medium chain fatty acid) is administered.

47. (New) The method of claim 46, wherein the microorganism comprises at least one selected from the group consisting of selenium, cobalt, manganese, zinc and copper.

48. (New) The method of claim 38, wherein the poly(β-hydroxy short-medium chain fatty acid) is that produced by a plant.

49. (New) The method of claim 48, wherein the plant containing the poly(β-hydroxy short-medium chain fatty acid) is administered.

50. (New) The method of claim 38, wherein an animal feeding stuff containing the polymer or an animal feeding stuff added with an additive containing the polymer is administered.

51. (New) The method of claim 38, wherein a functional food product containing the polymer is administered.

52. (New) A method for treating or preventing a disease condition in an animal including human, comprising delivering a β-hydroxy short-medium chain fatty acid, an oligomer thereof or a physiologically acceptable derivative thereof to the large intestine of the animal in need thereof.

53. (New) The method of claim 52, wherein the β-hydroxy short-medium chain fatty acid, an oligomer thereof or a physiologically acceptable derivative thereof is orally administered.

54. (New) The method of claim 53, wherein the disease condition is inflammatory bowel disease.

55. (New) The method of claim 53, wherein the disease condition is irritable bowel syndrome.

56. (New) The method of claim 53, which is for relieving stress.

57. (New) The method of claim 53, which is for promoting fat mobilization.

58. (New) The method of claim 53, wherein the disease condition is large bowel cancer.

59. (New) The method of claim 53, which is for keeping the bowel movement normal.

60. (New) The method of claim 59, which is for preventing or treating diarrhea.

61. (New) The method of claim 59, which is for preventing or treating constipation.

62. (New) The method of claim 53, wherein the disease condition is hyperlipidemia.

63. (New) The method of claim 53, which is for reducing urinary nitrogen excretion.